AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims:

1-2 (cancelled).

3. (currently amended) A pseudo-fractal antenna comprising:

a transmission line interface;

a dielectric; and

a radiator proximate to the dielectric having an effective electrical length formed in a first pseudo-fractal geometry, the radiator including at least one section formed in a first fractal geometry and ~~The antenna of claim 2 wherein the radiator includes~~ at least one section formed in a first non-fractal geometry, the at least one radiator non-fractal geometry section formed further from the transmission line interface than the at least one radiator fractal geometry section.

4. (original) The antenna of claim 3 wherein the radiator has an effective electrical length selected from the group including a half-wavelength and a quarter-wavelength of the antenna operating frequency.

5. (original) The antenna of claim 4,wherein the antenna operating frequency selected from the group including approximately 1575 megahertz (MHz), approximately 850 MHz, and approximately 1920 MHz.

6. (original) The antenna of claim 4 wherein the antenna is selected from the group including monopole and dipole antennas.

7. (original) The antenna of claim 6 wherein the antenna is a monopole antenna; and,

the antenna further comprising:

a counterpoise; and,

wherein the dielectric is interposed between the counterpoise and the radiator.

8. (original) The antenna of claim 7 wherein the radiator fractal geometry section is formed in a Koch curve.

9. (original) The antenna of claim 6 where the antenna is a dipole antenna; and,

the antenna further including:

a counterpoise having an effective electrical length.

10. (currently amended) The antenna of claim 9 wherein the counterpoise has an effective electrical length formed in a second pseudo-fractal geometry.

11. (currently amended) The antenna of claim 10 wherein the counterpoise includes at least one section formed in a second fractal geometry.

12. (original) The antenna of claim 11 wherein the radiator fractal geometry section is formed in a Koch curve; and,

wherein the counterpoise fractal geometry section is formed in a Koch curve.

13. (currently amended) The antenna of claim 9 wherein the counterpoise has an effective electrical length formed in a second non-fractal geometry.

14. (currently amended) The antenna of claim ~~1~~ 3 wherein the radiator is a conductor embedded in the dielectric.

15. (currently amended) The antenna of claim ~~1~~ 3 wherein the dielectric is a dielectric layer; and,

wherein the radiator is a conductive line overlying the dielectric layer.

16. (original) The antenna of claim 13 wherein the dielectric is a dielectric layer;

wherein the radiator is a conductive line overlying the dielectric layer; and,

wherein the counterpoise is a conductive line overlying the dielectric layer.

17. (original) The antenna of claim 16 further comprising:

a balun antenna feed having a transmission line interface, a lead port connected to the radiator, and a lag port, 180 degrees out of phase at the antenna operating frequency with the lead port, connected to the counterpoise.

18. (cancelled).

19. (currently amended) The antenna of claim 3 further comprising:

a transmission line interface; and[[,]]

wherein ~~a~~ the at least one radiator non-fractal geometry section is formed closer to the transmission line interface than the at least one radiator fractal geometry section.

20. (currently amended) The antenna of claim ~~1~~ 3 wherein the radiator pseudo-fractal geometry includes a Koch curve.

21. (original) The antenna of claim 20 wherein the radiator pseudo-fractal geometry includes a second order iteration Koch curve.

22-24 (cancelled).

25. (currently amended) A wireless communications device system comprising:

a wireless communication device receiver; and

a pseudo-fractal antenna including: a dielectric, a transmission line interface, and a radiator proximate to the dielectric having an effective electrical length formed in a first pseudo-fractal geometry, the radiator including at least one section formed in a first fractal geometry and ~~The system of claim 24 wherein the radiator includes~~ at least one section formed in a first non-fractal geometry, and the at least one radiator non-fractal geometry section is formed further from the transmission line interface than the fractal geometry section..

26. (original) The system of claim 25 wherein the radiator has an effective electrical length selected from the group including a half-wavelength and a quarter-wavelength of the antenna operating frequency.

27. (original) The system of claim 26 wherein the antenna operating frequency is approximately 1575 megahertz (MHz).

28. (original) The system of claim 27 wherein the antenna is selected from the group including monopole and dipole antennas.

29. (original) The system of claim 28 wherein the antenna is a monopole antenna; and,

the antenna further comprising:

a counterpoise; and,

wherein the dielectric is interposed between the counterpoise and the radiator.

30. (currently amended) The system of claim 29 wherein the at least one radiator fractal geometry section is formed in a Koch curve.

31. (original) The system of claim 28 where the antenna is a dipole antenna; and,

the antenna further including: a counterpoise having an effective electrical length.

32. (currently amended) The system of claim 31 wherein the counterpoise has an effective electrical length formed in a second pseudo-fractal geometry.

33. (currently amended) The system of claim 32 wherein the counterpoise includes at least one section formed in a second fractal geometry.

34. (currently amended) The system of claim 33 wherein the at least one radiator fractal geometry section is formed in a Koch curve; and[[,]]

wherein the at least one counterpoise fractal geometry section is formed in a Koch curve.

35. (currently amended) The system of claim 31 wherein the counterpoise has an effective electrical length formed in a second non-fractal geometry.

36. (currently amended) The system of claim ~~23~~ 25 wherein the radiator is a conductor embedded in the dielectric.

37. (currently amended) The system of claim ~~23~~ 25 wherein the dielectric is a dielectric layer; and[[,]]

wherein the radiator is a conductive line overlying the dielectric layer.

38. (original) The antenna of claim 35 wherein the dielectric is a dielectric layer;

wherein the radiator is a conductive line overlying the dielectric layer; and,

wherein the counterpoise is a conductive line overlying the dielectric layer.

39. (original) The system of claim 38 further comprising:

a balun antenna feed having a transmission line interface, a lead port connected to the radiator, and a lag port, 180 degrees out of phase at the antenna operating frequency with the lead port, connected to the counterpoise.

40. (currently amended) The system of claim ~~23~~ 25 ~~wherein the antenna includes a transmission line interface; and,~~ wherein the wireless communications device receiver is a global positioning satellite (GPS) receiver having a port connected to the ~~antenna~~ transmission line interface.

41. (currently amended) The system of claim 25 ~~wherein the antenna includes a transmission line interface; and,~~ wherein the wireless communications device receiver is a telephone transceiver having a port connected to the ~~antenna~~ transmission line interface.

42. (cancelled).

43. (currently amended) The system of claim 25 wherein ~~a~~ the at least one radiator non-fractal geometry section is formed closer to the transmission line interface than the at least one radiator fractal geometry section.

44. (currently amended) The system of claim ~~22~~ 25 wherein the radiator pseudo-fractal geometry includes a Koch curve.

45. (original) The system of claim 44 wherein the radiator pseudo-fractal geometry includes a second order iteration Koch curve.

46. (original) A pseudo-fractal dipole printed line antenna comprising:

a balun antenna feed having a transmission line interface, a lead port, and a lag port 180 degrees out of phase at the antenna operating frequency with the lead port;

a dielectric layer;

a radiator formed on the dielectric layer in a pseudo-fractal pattern and connected to the balun lead port; and,

a counterpoise formed on the dielectric layer in a pseudo-fractal pattern and connected to the balun lag port.

47. (original) The pseudo-fractal antenna of claim 46 wherein the radiator includes a plurality of line sections with a least one line section formed in a fractal geometry; and,

wherein the counterpoise includes a plurality of line sections with a least one line section formed in a fractal geometry.

48. (original) The pseudo-fractal antenna of claim 47 wherein the radiator fractal geometry line section is formed in a Koch curve; and,

wherein the counterpoise fractal geometry line section is formed in a Koch curve.

49. (original) The pseudo-fractal antenna of claim 48 wherein the radiator has an effective electrical length of a quarter-wavelength of the antenna operating frequency; and,

wherein the counterpoise has an effective electrical length of a quarter-wavelength of the antenna operating frequency.

50. (original) The pseudo-fractal antenna of claim 49 in which the antenna operating frequency is approximately 1.575 gigahertz (GHz).

51. (original) The pseudo-fractal antenna of claim 48 wherein the dielectric layer is FR4 material having a thickness of 15 mils.

52. (original) The pseudo-fractal antenna of claim 51 wherein the radiator is formed from half-ounce copper; and,

wherein the counterpoise is formed from half-ounce copper.

53. (original) The pseudo-fractal antenna of claim 52 wherein the radiator is formed in lines having a width of approximately 30 mils; and,

wherein the counterpoise is formed in lines having a width of approximately 30 mils.

54. (currently amended) A method for forming a pseudo-fractal dipole antenna, the method comprising:

forming a first pseudo-fractal geometry conductive section comprising a first fractal geometry conductive section and a first non-fractal geometry conductive section; ~~and,~~

forming a radiator from ~~using~~ the first pseudo-fractal geometry conductive section, ~~forming a~~ the radiator having an effective electrical length responsive to the combination of the first fractal and the first non-fractal conductive sections, the radiator effective electrical length selected from the group including a quarter-wavelength and a half-wavelength of the antenna operating frequency;

forming a counterpoise using a second fractal geometry conductive section and a second non-fractal geometry conductive section, the counterpoise having an effective electrical length responsive to the combination of the counterpoise fractal and non-fractal conductive sections; and

forming a dielectric interposed between the counterpoise and the radiator.

55. (currently amended) The method of claim 54 further comprising:

electro-magnetically communicating ~~on~~ at an operating frequency responsive to the effective electrical length of the radiator.

56-57 (cancelled).

58. (currently amended) The method of claim ~~57~~ 54 wherein forming a radiator includes the radiator having an effective electrical length with respect to an operating frequency of approximately 1575 megahertz (MHz).

59-61 (cancelled).

62. (currently amended) The method of claim ~~61~~ 54 wherein ~~forming a~~ the first fractal geometry conductive section includes ~~forming~~ a Koch curve.

63. (currently amended) The method of claim ~~61~~ 54 further comprising:

interfacing a transmission line to the antenna; and,

creating a 180 degree phase shift at the operating frequency between the radiator and the counterpoise.

64-65 (cancelled).

66. (new) A method for forming a pseudo-fractal antenna, the method comprising:

forming a transmission line interface

forming a pseudo-fractal geometry conductive section comprising a fractal geometry conductive section and a non-fractal geometry conductive section;

forming a radiator from the pseudo-fractal geometry conductive section, wherein the non-fractal geometry section is formed further from the transmission line interface than the fractal geometry section; and

locating the antenna proximate a dielectric, wherein the antenna has an effective electrical length.